WHAT IS CLAIMED IS:

1. An apparatus comprising:

a first acoustic resonator on a substrate; and

a second acoustic resonator above said first acoustic resonator, said second acoustic resonator vertically separated from said first acoustic resonator such that little or no acoustic energy is coupled between said first acoustic resonator and said second acoustic resonator.

2. The apparatus recited in claim 1 wherein said first acoustic resonator and said second acoustic resonator are film bulk acoustic resonators (FBARS).

3. The apparatus recited in claim 1 wherein said second acoustic resonator is supported by standoffs.

4. The apparatus recited in claim 1 further comprising at least one separator between said first acoustic resonator and said second acoustic resonator.

5. The apparatus recited in claim 1

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer; and

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer.

6. The apparatus recited in claim 2 further comprising a standoff fabricated on said first acoustic resonator connected to the bottom electrode of said second acoustic resonator.

7. The apparatus recited in claim 5 further comprising a standoff between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator.

8. The apparatus recited in claim 7 further wherein the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator are electrically connected by the standoff.

9. The apparatus recited in claim 7 wherein the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator are at different electrical potential relative to each other thereby creating a capacitive potential between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator.

10. The apparatus recited in claim 1 further comprising standoffs separating said first acoustic resonator from said second acoustic resonator.

11. The apparatus recited in claim 10 wherein said standoffs comprise tungsten.

12. The apparatus recited in claim 10 wherein at least one standoff electrically connects said first acoustic resonator and said second acoustic resonator.

13. The apparatus recited in claim 1 wherein said first acoustic resonator is de-coupled from said second acoustic resonator by air.

14. The apparatus recited in claim 1 wherein distance between said first acoustic resonator and said second acoustic resonator is within a range from 0.1 microns to 20 microns.

15. The apparatus recited in claim 1 further comprising a third acoustic resonator vertically separated above said second acoustic resonator.

16. An apparatus comprising a plurality of resonators fabricated on a substrate, the apparatus including a first acoustic resonator and a second acoustic resonator vertically separated above said first acoustic resonator, said second acoustic resonator acoustically separated from said first acoustic resonator.

17. The apparatus recited in claim 16 wherein said second acoustic resonator is supported by standoffs.

18. The apparatus recited in claim 16 wherein said first acoustic resonator and said second acoustic resonator are film bulk acoustic resonators (FBARS).

19. The apparatus recited in claim 16

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer; and

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer.

20. The apparatus recited in claim 19 further comprising a standoff fabricated on the top electrode of said first acoustic resonator connected to the bottom electrode of said second acoustic resonator.

21. The apparatus recited in claim 19 further comprising a standoff between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator.

22. The apparatus recited in claim 19 further comprising standoffs separating said first acoustic resonator from said second acoustic resonator.

23. The apparatus recited in claim 22 wherein said standoffs comprise tungsten.

24. A method of fabricating an apparatus, the method comprising:

fabricating a first resonator on a substrate;

fabricating a sacrificial layer surrounding said first resonator;

fabricating standoffs;

fabricating a second resonator on the sacrificial layer above the standoffs; and

removing the sacrificial layer.

25. The method recited in claim 24 further comprising planarizing the sacrificial layer before fabricating the second resonator.